

**MARK SCHEME for the October/November 2009 question paper  
for the guidance of teachers**

<b>9698/21</b>	<b>9698 PSYCHOLOGY</b> Paper 21 (Core Studies 2), maximum raw mark 50
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This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

- CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the October/November 2009 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

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### Section A

#### 1 From the study by Sperry on split brain patients:

(a) Explain why the participants had the split brain operation. [2]

The participants had severe epilepsy and severing the two halves of the brain would reduce the negative symptoms.

(b) Outline *one* problem with generalising from split brain patients. [2]

Any one from: the brains of split brain patients may not be the same as normal brains, small sample etc.

#### 2 Loftus and Palmer looked at the cognitive process of eyewitness testimony.

(a) Outline *one* finding from Experiment 2 in this study. [2]

Any one from: memory is not reliable, eye witness testimony memory is not reliable and is easily influenced by information received after the event e.g. the verb used affected whether or not participants saw broken glass in experiment 2.

(b) Suggest *one* difficulty when studying cognitive processes. [2]

Any one from: finding valid measure, ecological validity, participants can lie individual differences, cannot see the process, etc.

#### 3 From the study by Gardner and Gardner on Project Washoe:

(a) Outline *one* technique used to teach Washoe sign language. [2]

Any one from: reinforcement, rewards, tickling, imitation etc.

(b) Suggest *one* ethical issue raised by this technique. [2]

Any one from: withdrawal, protection, must relate to technique.

#### 4 Baron-Cohen, Leslie and Frith tested 'normal' children, Down's syndrome children and autistic children in their study on autism.

(a) Explain why 'normal' children and Down's syndrome children were studied. [2]

To show that autism was nothing to do with intelligence nor a general cognitive impairment but a specific deficit i.e. theory of mind (2 marks). It acts as a control between the participants (1 mark).

(b) Explain why mental age (MA) was tested in this study. [2]

IQ test was used to ensure autistic participants had a higher/equal intelligence than the other children.

#### 5 Describe the qualitative *and* quantitative data collected in the study by Dement and Kleitman. [2 + 2]

Qualitative data: contents of dreams.

Quantitative data: REM data from EOG, number of dreams reported, dream length estimate etc.

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**Partial/full answer**

<b>0 marks</b>	No answer or incorrect answer.
<b>1 mark</b>	Partially correct answer or correct but incomplete lacking sufficient detail or explanation to demonstrate clear understanding.
<b>2 marks</b>	Correct answer with sufficient detail/explanation to demonstrate clear understanding.

**Section B**

- 6 The findings from psychological research can be applied to many everyday settings and practices, for example by teachers in schools or by politicians when developing policies for prisons, childcare and court cases.**

Using the studies from the list below, answer the questions which follow.

**Haney, Banks and Zimbardo (prison simulation)**  
**Raine, Buchsbaum and La Casse (brain scans)**  
**Rosenhan (sane in insane places)**  
**Bandura, Ross and Ross (aggression)**

- (a) Outline what each study tells us that is useful. [10]**

*Emphasis on study. Answers must be related to named studies. One point from each study.*

Indicative Content:

**Zimbardo:** too much power corrupts, a lack of power demoralises, prison system needs to change etc.

**Raine:** there are differences in the brains of murderers which may be the cause or result of the murder. This could be used to help/understand this behaviour.

**Rosenhan:** psychiatric patients are treated badly in hospitals, doctors are not reliable in their diagnosis of psychiatric illness, patients feel powerless.

**Bandura:** children imitate aggression which parents and other role models should be aware of to prevent aggressive behaviour.

For each point up to a maximum of four points	
No answer or incorrect answer.	0
Identification of point relevant to question but not related to study or comment from study but no point about usefulness.	1
Description of point about usefulness (comment without comprehension).	2
As above but with analysis (comment with comprehension) about usefulness.	3
Max. mark	10

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**(b) What problems may psychologists have when they try to conduct useful research? [10]**

*Emphasis on problem. Answers supported with named (or other) studies. Each problem does not need a different study; can use same study.*

Indicative Content:

demand characteristics, low ecological validity, ethics, validity and reliability.

For each point up to a maximum of four points	
Difficulty with study itself not related to usefulness.	0
Identification of difficulty related to usefulness.	1
Description of problem related to usefulness.	2
Description of problem related to usefulness and applied effectively to study.	3
Max. mark	10

**(c) Which areas of research do you think are most useful? Give reasons for your answer. [10]**

*Emphasis on point. Answers supported with named study (or other) studies/evidence.*

One or two general statements which may be inaccurate, incomplete or muddled.	1–2
General statements are made which are focused on the question but are basic, lacking in detail and have no supporting evidence. For four marks there may be general statements with anecdotal evidence or vague reference to supporting psychological evidence.	3–4
A number of points are made which are focused on question and are generally accurate. There is some supporting psychological evidence but there is little detail and no attempt to justify the points or as for 7–8 marks but with only two points.	5–6
Four points (best four) are made which are focused on the question and are accurate. There is supporting psychological evidence with an attempt to justify the points. There is increased detail but the range of arguments is limited and there may be an imbalance or as for 9–10 marks but with only 3 points.	7–8
A range of different points (best four) is made which are accurate and show understanding. Each point has appropriate supporting psychological evidence. The arguments are well expressed, well considered, are balanced, and reflect understanding which extends beyond specific studies. There may well be a consideration of the implications and effects.	9–10
Max. mark	10

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7 Ethnocentric bias can refer to one group being favoured over another.

Using the studies from the list below, answer the questions which follow.

Deregowski (picture perception)  
Tajfel (intergroup categorisation)  
Piliavin, Rodin and Piliavin (subway Samaritans)  
Hraba and Grant (doll choice)

(a) Describe the ethnocentric bias in each of these studies. [10]

*Emphasis on study. Answers must be related to named studies. One point from each study*

Indicative Content:

**Deregowski:** the materials used were biased towards westerners and also the depth cues used, the interpretation of the anecdotal evidence was also biased.

**Tajfel:** the boys showed ethnocentric bias when awarding points to each other they favoured their own groups and discriminated against the out groups.

**Piliavin:** there was some tendency towards same race helping in the black victim condition.

**Hraba and Grant:** the black children chose black dolls and the white children chose white dolls demonstrating a preference for their own group.

For each point up to a maximum of four points		
No answer or incorrect answer.		0
Identification of point relevant to question but not related to study or comment from study but no point about ethnocentric bias.		1
Description of point about ethnocentric bias (comment without comprehension).		2
As above but with analysis (comment with comprehension) about ethnocentric bias.		3
	Max. mark	10

(b) What problems may psychologists have when they study ethnocentric bias? [10]

*Emphasis on problem. Answers supported with named (or other) studies. Each problem does not need a different study; can use same study.*

Indicative Content:

Ethics, sample, materials, valid measurement, language problems, cost of travel etc.

For each point up to a maximum of four points		
Incorrect problem with study NOT related to ethnocentric bias.		0
Identification of problem not related to ethnocentric bias.		1
Description of problem related to ethnocentric bias.		2
Description of problem related to ethnocentric bias applied to study effectively.		3
	Max. mark	10

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**(c) How can ethnocentric bias in society be overcome? Give reasons for your answer. [10]**

*Emphasis on point. Answers supported with named study (or other) studies/evidence.*

One or two general statements which may be inaccurate, incomplete or muddled.	1–2
General statements are made which are focused on the question but are basic, lacking in detail and have no supporting evidence. For four marks there may be general statements with anecdotal evidence or vague reference to supporting psychological evidence.	3–4
A number of points are made which are focused on question and are generally accurate. There is some supporting psychological evidence but there is little detail and no attempt to justify the points or as for 7–8 marks but with only two points.	5–6
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8 Longitudinal studies are carried out over a period of days or months whereas snapshot studies are carried out over a much shorter period of time.

Using the studies from the list below, answer the questions which follow.

Hodges and Tizard (social relationships)  
 Freud (little Hans)  
 Samuel and Bryant (conservation)  
 Milgram (obedience)

(a) Describe how each of these studies was longitudinal or snapshot. [10]

*Emphasis on study. Answers must be related to named studies. One point from each study*

Indicative Content:

**Hodges and Tizard:** longitudinal study carried out until the participants were 16 years

**Freud:** longitudinal study carried out over a period of months

**Samuel and Bryant:** snapshot study carried out in a laboratory

**Milgram:** snapshot study carried out in a laboratory

For each point up to a maximum of four points		
No answer or incorrect answer.		0
Identification of point relevant to longitudinal/snapshot but not related to study or comment from study but no point about longitudinal/snapshot.		1
Description of point about longitudinal/snapshot (comment without comprehension).		2
As above but with analysis (comment with comprehension) about longitudinal/snapshot.		3
	Max. mark	10

(b) What are the weaknesses of using longitudinal studies in psychological research? [10]

*Emphasis on problem. Answers supported with named (or other) studies. Each problem does not need a different study; can use same study.*

Indicative Content:

Weaknesses: subject attrition, takes too long, ethics of invasion of privacy, hard to replicate, expensive, experimenter bias due to becoming overly involved, often a small sample.

For each point up to a maximum of four points		
Problem with study itself not related to longitudinal.		0
Identification of weakness related to longitudinal.		1
Description of weakness related to longitudinal.		2
Description of weakness related to longitudinal & applied effectively to study.		3
	Max. mark	10

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**(c) Is there any place for snapshot studies in psychological research? Give reasons for your answer. [10]**

*Emphasis on point. Answers supported with named study (or other) studies/evidence.*

One or two general statements, which may be inaccurate, incomplete or muddled.	1–2
General statements are made which are focused on the question but are basic, lacking in detail and have no supporting evidence. For four marks there may be general statements with anecdotal evidence or vague reference to supporting psychological evidence.	3–4
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Max. mark	10